

# Job Title: ENGINEERING TECH IV - BRIDGE TECHNICIAN INSPECTION SPECIALIST - IPR#46631

**Agency :** Department of Transportation

**Closing Date/Time:** 06/30/2023

**Salary:** \$4,790 - \$8,755 Monthly

**Job Type:** Salaried Full Time

**County:** Peoria

**Number of Vacancies:** 1

**Plan/BU:** NR916 - Protech Teamsters

**\*This position is covered by the Revolving Door Prohibition Policy.**

**This position is a union position; therefore, provisions of the relevant collective bargaining agreement/labor contract apply to the filling of this position.**

**All applicants who want to be considered for this position MUST apply electronically through the [illinois.jobs2web.com](https://illinois.jobs2web.com) website. State of Illinois employees should click the link near the top left to apply through the **SuccessFactors** employee career portal.**

**Applications submitted via email or any paper manner (mail, fax, hand delivery) will not be considered.**

## **Agency Mission Statement**

The Illinois Department of Transportation is seeking to hire a Bridge Technician Inspection Specialist.

The IDOT team works diligently to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and protect our environment. We are problem solvers and leaders, constantly searching for innovations and improvements in support of our commitment to providing the best multimodal transportation system for Illinois.

Our team fosters a culture of inclusivity. We value diversity and hold ourselves to the highest ethical standards as we work together for a common purpose. Team members frequently collaborate with colleagues and others outside the department to best meet customer needs.

The department offers extensive training and career advancement opportunities. Employees also receive a robust benefit package including:

- Monday-Friday work schedule
- Flexible work schedules are available in many program areas.
- Health, Life, Vision, and Dental Insurance
- Pension Plan
- (10) Weeks paid Maternity/Paternity Leave
- Deferred Compensation Program and other pre-tax benefit programs (Medical/Daycare)
- Employees earn (12) paid Sick Days annually.
- New Employees earn (10) paid Vacation Days their first year of service and can earn up to (25) paid Vacation Days annually.
- Employees earn (3) paid Personal Days annually.
- (13-14) paid holidays annually (based on start date)
- Tuition Reimbursement
- Employee Assistance Program and/or mental health resources

We invite qualified applicants to apply to become part of our team. We are confident that you will take pride in serving Illinois and its residents and visitors.

## **Job Responsibilities**

This position is responsible for detailed inspection of bridges and structures throughout the district to fulfill the requirements of the National Bridge Inspection Standards (NBIS), those of the district and state maintenance policies, management of the district's bridge Inspection specialist team, preparation of necessary reports and

forms and input of required data into the Bridge Inspection System (BIS) within the Illinois Structure Information System (ISIS).

Subordinate Personnel: 0 to 3 as needed

Total number of bridges and drainage structures, including major river crossings: +825

Total number of bridges requiring underwater inspections: +35

Total number of bridges requiring fracture critical inspections: + 15

Annual inspections mandated by state and NBIS: +350

Annual inspections mandated by state's ELI Program: +350

Annual fracture critical inspections: 5-10

Annual underwater inspections: +25

Routine Monthly / Annual Special Features inspections: 80

Annual confined space / vault inspections: +15

This position reports to the District Bridge Engineer Inspection Specialist. Reporting to this position are 0-3 technicians or highway maintainers on a project basis.

The duties of this position are complex due to the large number and variety of bridges and structures involved. Access to critical areas of many structures is poor, making adequate inspection very difficult; in order to properly inspect said critical areas the incumbent will be required to work from various types of personnel lifting equipment at heights in excess of 100 feet over both land and water; in some instances, the incumbent will be required to exit the lifting equipment and climb to points otherwise inaccessible. The incumbent's analysis and recommendations have appreciable impacts on the safety of motorists, preservation of structures, and plans and procedures for temporary or permanent repair. The bridges are a large investment of public funds. Proper inspection and evaluation according to standards, policies and engineering judgment protects this investment, attempts to prevent structural failures and increases the level of public safety. The incumbent must have knowledge of bridge nomenclature. He/She must possess the ability and special training to recognize structural problems related to fracture critical members and scour in various bridge designs.

### **(Job Responsibilities continued)**

Typical problems include coordinating, managing, and making arrangements for personnel and equipment of the Inspection Specialist team in such a manner to ensure that the required inspection data is collected safely, accurately, and efficiently. The greatest challenge is the search for and detection of deficiencies that affect structural integrity and capacity, determining the reasons for those deficiencies and suggesting repair strategies. These investigations include, but are not limited to, fracture critical members, pin and link assemblies, underwater bridge inspection and scour analysis.

This position working with the Bridge Engineer Inspection Specialist is responsible for assisting in the ongoing detailed inspection and minor preventive maintenance of all State maintained bridges and inventoried drainage structures in the district. This includes, but is not limited to, bridges requiring inspections of fracture critical members, pin and link assemblies and underwater inspections of those with potential scour. This work includes obtaining field measurements, photographs, surveys, assessment of structural conditions and compilation of complete inspection forms and reports for various bridges and structures. Proper performance of these duties is critical in order to ensure the safety of the highway user, protect the public's investment in bridges inspected, and fulfill requirements of the NBIS and the Bridge Management Program (Element Level Bridge Inspections).

The incumbent's internal contacts are with the Program Development for existing plan review and plan preparation requirements for reference to the Bridge Inventory and Project Implementation for "as built" plans, and for material certification and tests. He/She has contact with the central Bureau of Operations and the central Bureau of Bridges and Structures in order to remain current with inspection requirements and to share detailed technical information and analysis techniques or standards. This position requires districtwide travel which could include overnight stays and overtime.

The effectiveness to this position may be measured by the results achieved in complying with the requirements of the NBIS. This includes and is documented by the quantity and quality of inspections and reports completed. Ultimate effectiveness is measured in the level of safety and integrity of the bridges and structures maintained.

### **Principal Accountabilities**

1. Directs and supervises on a day-to-day basis a Bridge Inspection Specialist team in the continuing detailed field inspection of bridges and structures throughout the district to ensure compliance with the NBIS.

2. Conducts field inspections of fracture critical structures and pin and link assemblies, underwater bridge inspection and scour analysis to meet the requirements of the NBIS.
3. Conducts visual inspection of bridges to seek out damaged or deteriorated components, providing records and photographs of deficiencies detected and makes appropriate recommendations for repair or further structural analysis. Surveys include precise measurements and elevations of bridge components and stream or river bed profiles and cross-sections.
4. Responsible for being knowledgeable of the NBIS, Element Level Bridge Inspections, and technological developments relating to bridge inspection through training and other resources.
5. Responsible for determining potential problem areas and taking effective action to resolve ongoing and potential bridge problems.
6. Must be able to properly recognize and analyze bridge pin and link assembly deficiencies and recommend repair or rehabilitation; recognize seized bearing and pin hanger assemblies; recognize beams and substructure units for deterioration or displacement; analyze channels for scour.
7. Prepares bridge inspection forms and reports under the direction of the Bridge Engineer Inspection Specialist. Enters inspection data, requests reports and analyzes information from the BIS/ISIS system.
8. Operates and maintains a variety of expensive and sophisticated equipment used by the team.
9. Establishes proper traffic protection in accordance with departmental standards.
10. Performs calculations in conjunction with the inspection and reports.
11. Conducts field inspection of sign trusses, vaults and other confined spaces, and small structures including, but not limited to, single and multiple cell culverts.
12. Assists the Bridge Engineer Inspection Specialist with computer data entry tracking.
13. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
14. Performs other duties as assigned.

## **Qualifications**

### **Position Requirements**

- Education/Experience
  - Completion of two years of college in civil engineering technology, pre-engineering or a job related technical/science curriculum PLUS five years of engineering experience; OR
  - Seven years of engineering experience.
- Valid Driver's license
- Districtwide travel which could include overnight stays and overtime
- Ability to work in confined spaces; climb various types of structures at various heights over land and water in adverse environment of weather, debris and traffic conditions; and operate under bridge cranes, aerial lift and underwater inspection equipment as well as non-destructive testing and confined space entry equipment.

### **Position Desirables**

- Knowledge of bridge nomenclature and ability to recognize structural problems in a variety of bridge types in order to immediately report serious deficiencies
- Strong oral and written communication skills
- Efficiency in Microsoft Office applications

**Work Hours:** 8:00 A.M. - 4:30 P.M. Monday-Friday

**Work Location:** 401 Main St Peoria, IL 61602-1267

**Office:** Office of Highways Project Implementation/Region 3/District 4/Operations

**Agency Contact:** [DOT.CONTACTHR@ILLINOIS.GOV](mailto:DOT.CONTACTHR@ILLINOIS.GOV)

**Job Family:** Transportation; Public Safety; Science, Technology, Engineering & Mathematics

## **APPLICATION INSTRUCTIONS**

Use the "Apply" button at the top right or bottom right of this posting to begin the application process.

If you are not already signed in, you will be prompted to do so.

State employees should sign in to the career portal for State of Illinois employees – a link is available at the top left of the [Illinois.jobs2web.com](http://Illinois.jobs2web.com) homepage in the blue ribbon.

Non-State employees should log in on the using the "View Profile" link in the top right of the [Illinois.jobs2web.com](http://Illinois.jobs2web.com) homepage in the blue ribbon. If you have never before signed in, you will be prompted to create an account.

If you have questions about how to apply, please see the following resources:

State employees: Log in to the career portal for State employees and review the Internal Candidate Application

Job Aid

Non-State employees: on [Illinois.jobs2web.com](http://Illinois.jobs2web.com) – click "Application Procedures" in the footer of every page of the website.

The main form of communication will be through email. Please check your “junk mail”, “spam”, or “other” folder for communication(s) regarding any submitted application(s). You may receive emails from the following addresses:

- donotreply@SIL-P1.ns2cloud.com
- systems@SIL-P1.ns2cloud.com